

# PC<sup>®</sup> 80M Mortar

## 1. Description and area of application

PC<sup>®</sup> 80M is a two-component inorganic mortar based on specially formulated glass powder and fillers for component one and modified silica dispersion for component two. Components to be mixed in the ratio of 100 part component one with 23 (Trowel grade) or 26 (Spray grade) part component two. PC<sup>®</sup> 80M is used to adhere FOAMGLAS<sup>®</sup> cellular glass to itself within a large temperature range. When the temperatures are very low, very high, or when they cycle rapidly, use the laminated technique that consists of embedding a specific reinforcement mesh in the adhesive layer.



## 2. Application

### 2.1 Preparation of the substrate

The surface to be insulated should be clean, dry and free from all traces of grease, rust, dust, oil, and moisture.

### 2.2 Preparation of the adhesive and application guideline

100 parts (by weight) of powder are added into 23 parts of liquid (26 parts of liquid when using spraying equipment – SPRAY BOY - PUTZMEISTER) and are thoroughly mixed with a stirring paddle in an electric or air-powered mixer until a homogenous mixture is obtained. NEVER add Portland cement, water or other materials to liquid, powder or mortar mix. Temperature affects curing and working time. It should be as close to 25°C as possible. NEVER dilute or rework, but discard any mortar that has begun to set. The mortar is creamy and non-sagging, up to thicknesses of about 7mm.

PC<sup>®</sup> 80M may be applied to either one or both surfaces. A notched trowel (notches 5 x 5 mm, distance 5 mm) is recommended for close fitting surfaces. Protect work from rain, frost and excessive temperatures until set. Application temperature is between +5 and +45 °C.

### 2.3 Cleaning the tools

Tools can be cleaned with water before mortar sets, dry mortar can be removed mechanically.

### 2.4 Limitations

Do not put the installation into service earlier than 8 days after application.

### 2.5 Product Safety Notice

All material safety data sheets (MSDS) are available. They aim to ensure a safe handling of the product and correct disposal.

Avoid breathing liquid component mist and powder dust, avoid contact with eyes (flush thoroughly with water) and prolonged contact with skin. Reduce exposure by wearing safety goggles and rubber or plastic-coated gloves.

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**3. Type of delivery and storage**

Powder component 1: polyethylene lined paper bags, 25 kg net.

Liquid component 2: polyethylene bottles, 5.75 kg for trowel grade or 6.5 kg net for spray grade.

- Store cool and dry in well-closed containers.
- Protect against heat and direct exposure to sunrays.
- Protect against frost.

**4. Consumption**

In case of a full bonding: approx. 5 kg/m<sup>2</sup>

As reinforced surface coating: approx. 8 kg/m<sup>2</sup>.

These quantities are for guidance only; they depend on the properties of the substrate, the thickness of the FOAMGLAS<sup>®</sup> slabs, the application and site conditions, etc.

**5. Key data**

Type	Two-component inorganic mortar
Basis	Component 1: mixture of glass powder and sand Component 2: modified silica dispersion
Consistency	pasty (after mixing the two components)
Service temperature	- 196 °C to + 320 °C
Application temperature (air + basis surface)	+ 5 °C to + 45 °C
Application time	at 25 °C: approx. 30 minutes
Drying time	approx. 3 hours
Dehydration time	several days
Mass density	Powder (bulk density): 1.09 kg/dm <sup>3</sup> Liquid: 1.31 kg/dm <sup>3</sup> Mixed mortar (fresh): 1.46 kg/dm <sup>3</sup> Cured mortar: 1.09 kg/dm <sup>3</sup>
Colour	light grey
Water vapour diffusion resistance	μ = approx. 30
Water solubility	insoluble, after complete drying
Solvents	none
Reaction to fire (EN 13501-1)	-
VOC	-
Giscode	-
Modulus of elasticity (CS method)	at ambient temperature: 800 N/mm <sup>2</sup> , at -120 °C: 1100 N/mm <sup>2</sup>
Linear coefficient of thermal expansion	from +20 °C to -120 °C: 8x10 <sup>-6</sup> / °C
Flash point	none, noncombustible

The physical properties indicated above are average values, which are measured under typical conditions. These values may be influenced by insufficient mixing, the type of laying, the layer thickness and the atmospheric conditions during and after application. In particular, drying times are affected by temperature, air humidity, direct sunlight, wind, etc.

Additional information can be found in our technical data sheets (TDS). Our liability and responsibility are guided exclusively by our general terms and conditions and are not expanded by the statement of our technical documents nor by the advice of our technical field service.